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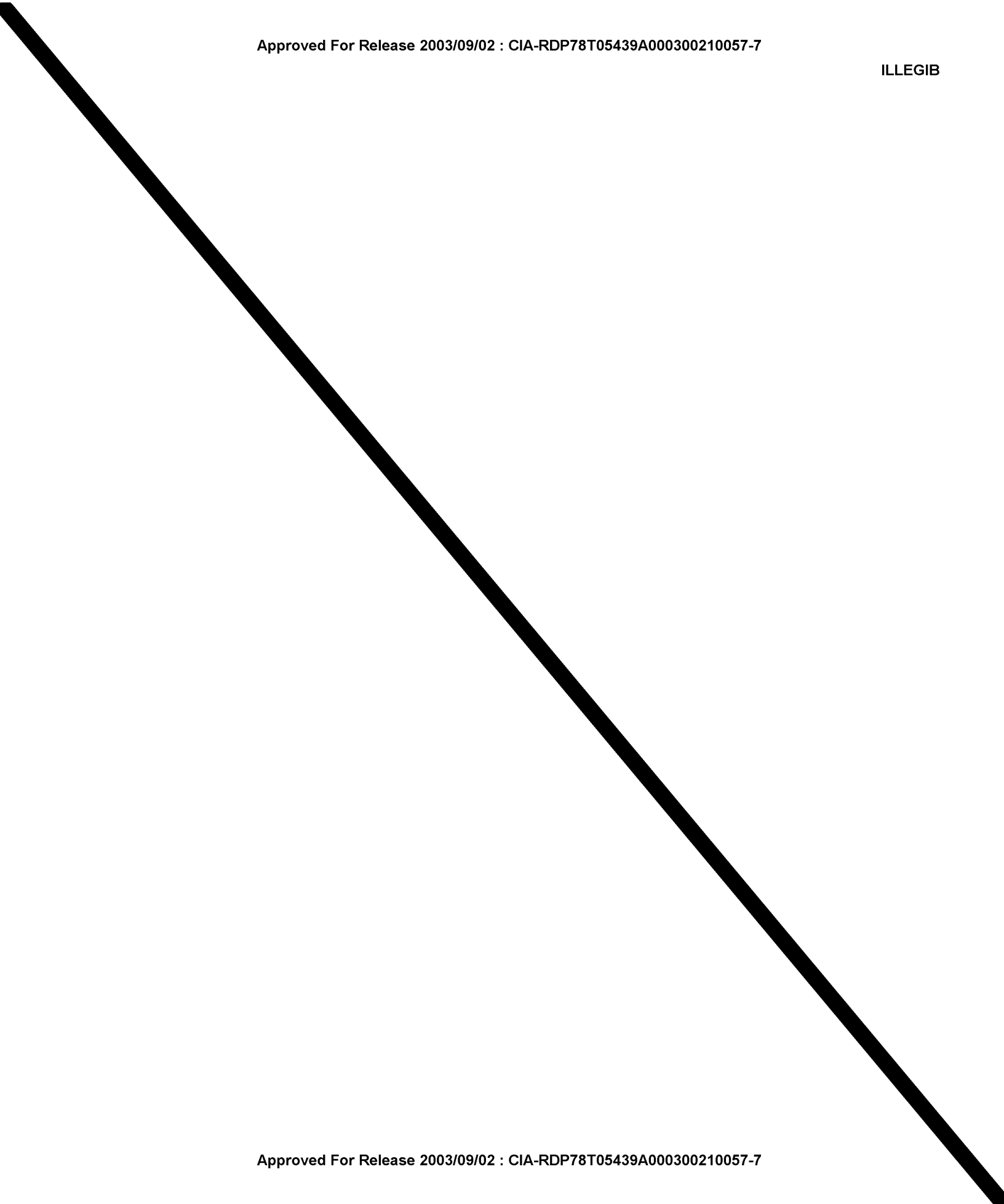

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M/EB 19/64
10 January 1964
Copy 1

MEMORANDUM FOR: Chief, B2 Division/P043, NSA

25X1A ATTENTION: [redacted]

FROM: Chief, CIA/PID (NPIC)

SUBJECT: Hsien-Yang Communications Site, China

REFERENCES: (a) Requirement [redacted]
(b) CIA/PID Project C 1714-63

1. This memorandum is in response to your request dated 22 November 1963 requesting a detailed readout of the Hsien-Yang communications station.

2. The station (see Enclosures 4, 5 and 6) is located approximately 2.5 nautical miles north-northwest of Hsien-Yang, China at 34-23-10N 108-41-45E and consists of an operations and support area. It is single fenced and covers approximately 315 acres (2,950 by 4,650 feet). The operations area contains three multi-storied transmitter buildings, two probable antenna-tuning houses, two unidentified structures and 25 self-supporting lattice towers each bearing a 45-foot long crossarm (Enclosure 1, items 1 through 7). The lattice towers support 20 high frequency curtain arrays. The presence of crossarms indicates that each curtain could have a reflector screen and/or a beam switching capability. Probable transmission points near the probable antenna-tuning houses at transmitter buildings 4 and 6, and the direction of the transmission lines from all three transmitter buildings indicates that each of the buildings probably serve separate groups of antennas. Each transmitter building has an oval shaped cooling pond with an inner and outer area approximately 85 by 30 feet and 125 by 75 feet, respectively. Photography
25X1D of [redacted] reveals that although all ponds contain water only the cooling pond at transmitter building 5 is completely filled.

Marks on the ground between the towers are probably vertical feed points. Assuming these feed lines lead to probable end-fed and/or center-fed one-half wave length dipoles, the curtains could contain a total of 128 bays (one-half wave length dipoles) with approximate frequencies and azimuths as indicated on Enclosure 2. Figures for Enclosure 2 are based on measurements given in Enclosure 3.

The support area consists of one administration building, 15 storage/barrack buildings, a probable security building, and one unidentified building (Enclosure 1, items 8 through 18).

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Subject: Hsien-Yang Communications Site M/EB 19/64

3. The photo analysts on this project are [redacted] 2
25X1A [redacted] who may be contacted on [redacted] should you have any further questions concerning this project.

4. This project is considered to be complete.

[redacted] 2

Enclosures:
1 - Enclosure 1, Building Tabulation
2 - Enclosure 2, Antenna Summary
3 - Enclosure 3, Tower Data
4 - One line drawing of station
(CIA/PID/MEB-P-26/64)
5 - One annotated photograph and
one annotated vu-graph
(CIA/PID/MEB-P-12/64)

Attachment to:
M/EB 19/64

ENCLOSURE 1

Building	Description	Dimension (feet)	Function
1.	Single story, flat roofed	55 by 25	Secured, probable antenna-turing house
2.	Multi-storied, monitor roofed	105 by 40	Unidentified
3.	Single story, flat roofed	55 by 25	Secured, probable antenna-tuning house
4.	Multi-storied, monitor roofed	250 by 50	Transmitter building
5.	Single story, flat roofed	145 by 45	Unidentified
6.	Multi-storied, monitor roofed	250 by 50	Transmitter building
7.	Multi-storied, monitor roofed	145 by 105 (overall)	Transmitter building
8.	Single story, flat roofed	125 by 35	Transformer building and power sub station in 230 by 230 secured area
9.	Single story, gable roofed	35 by 30	Probable administrative building
10.	Single story, gable roofed	195 by 30	Storage/barracks building
11.	Single story, gable roofed	140 by 20	Storage/barracks building
12.	Single story, gable roofed	125 by 20	Storage/barracks building
13.	Multi-storied, gable roofed	105 by 50	Probable barracks building
14.	Three single story, gable roofed	115 by 20	Storage/barracks building
15.	Single story, gable roofed	105 by 30	Storage/barracks building
16.	Single story, gable roofed	55 by 25	Storage/barracks building
17.	Six single story, gable roofed	90 by 20	Storage/barracks building
18.	Single story, gable roofed	55 by 25	Security building

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Attachment to:
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ENCLOSURE 2

Curtain Antenna Array	Maximum Height Curtain (ft)	Distance Between Towers (ft)	Number of Bays ($\frac{1}{2}$ wave length dipoles)	*Approximate Nominal Design Frequency (mc)
A	220	380	8	11 - 12
B	175	335	8	15 - 17
C	175	335	8	15 - 17
D	295	470	8	10 - 11
E	365	440	4	6 - 7
F	365	440	4	6 - 7
G	220	380	8	15 - 17
H	295	470	8	10 - 11
I	365	470	4	6 - 7
J	365	440	4	6 - 7
K	365	440	4	6 - 7
L	365	440	4	6 - 7
M	295	470	8	8 - 10
N	220	380	8	15 - 17
*O	365	440	4	6 - 7
*P	365	440	4	6 - 7
Q	295	490	8	8 - 10
R	175	345	8	15 - 17
S	175	345	8	15 - 17
T	220	380	8	11 - 12

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*REMARKS: All frequencies computed are based on the identification of the marks between towers as vertical feed points and the approximate distances between these points.

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SUMMARY

Number of Bays	Maximum Height	Approximate Nominal Design Frequency (mc)
16	365	6 - 7
8	295	8 - 10
8	295	10 - 11
16	220	11 - 12
16	175	15 - 17
8	365	6 - 7
8	295	10 - 11
8	175	15 - 17
8	220	15 - 17
8	365	6 - 7
8	295	8 - 10
8	175	15 - 17
8	220	15 - 17

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Attachment to:
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Tower Number	Heights of Towers (feet)	*Distance Between Towers (feet)	*Distance Between Feed Points and/or Towers (feet)
1	220	380	75, 85, 60, 85, 75
2	220	335	65, 70, 65, 60, 75
3	175		
4	175	335	75, 60, 65, 60, 75
5	295	470	95, 95, 90, 95, 95
6	365	440	135, 165, 140
7	365	440	140, 165, 135
8	365	380	80, 75, 70, 70, 85
9	220		
10	295	470	95, 95, 90, 95, 95
11	365	440	140, 165,135
12	365	440	140, 165, 135
13	365	440	140, 165, 135
14	365	440	140, 165, 135
15	365	470	90, 110, 70, 110, 90
16	295		
17	220	380	85, 70, 70, 70, 85
18	365	440	140, 165, 135
19	365	440	145, 160, 140
20	365	490	95, 110, 75, 110, 95
21	295	345	75, 65, 65, 65, 75
22	175		
23	175	345	70, 70, 60, 75, 70
24	220	380	75, 85, 60, 85, 75
25	220		

*Beginning with tower number 1 on line drawing, these measurements run in a clockwise direction.

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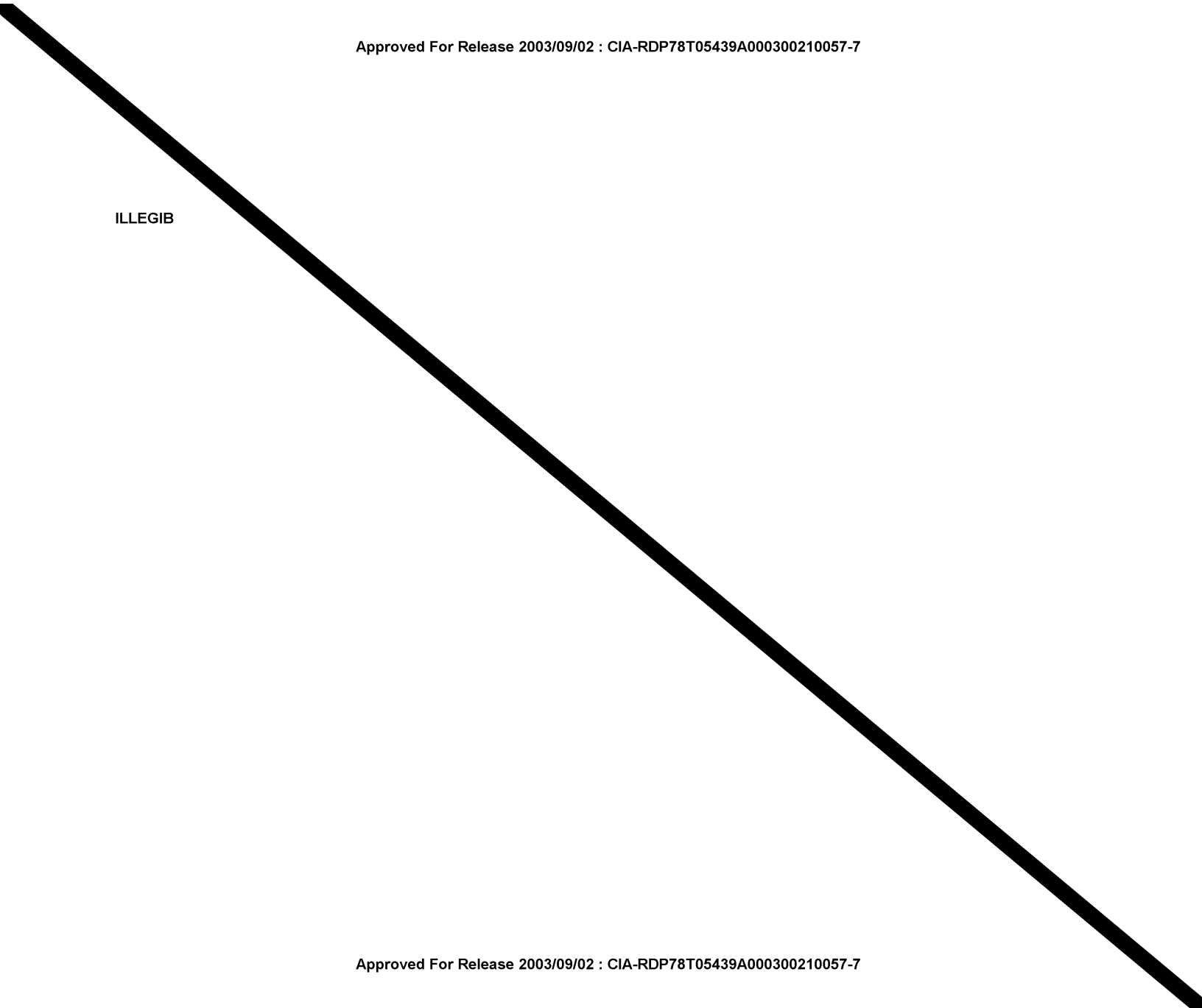

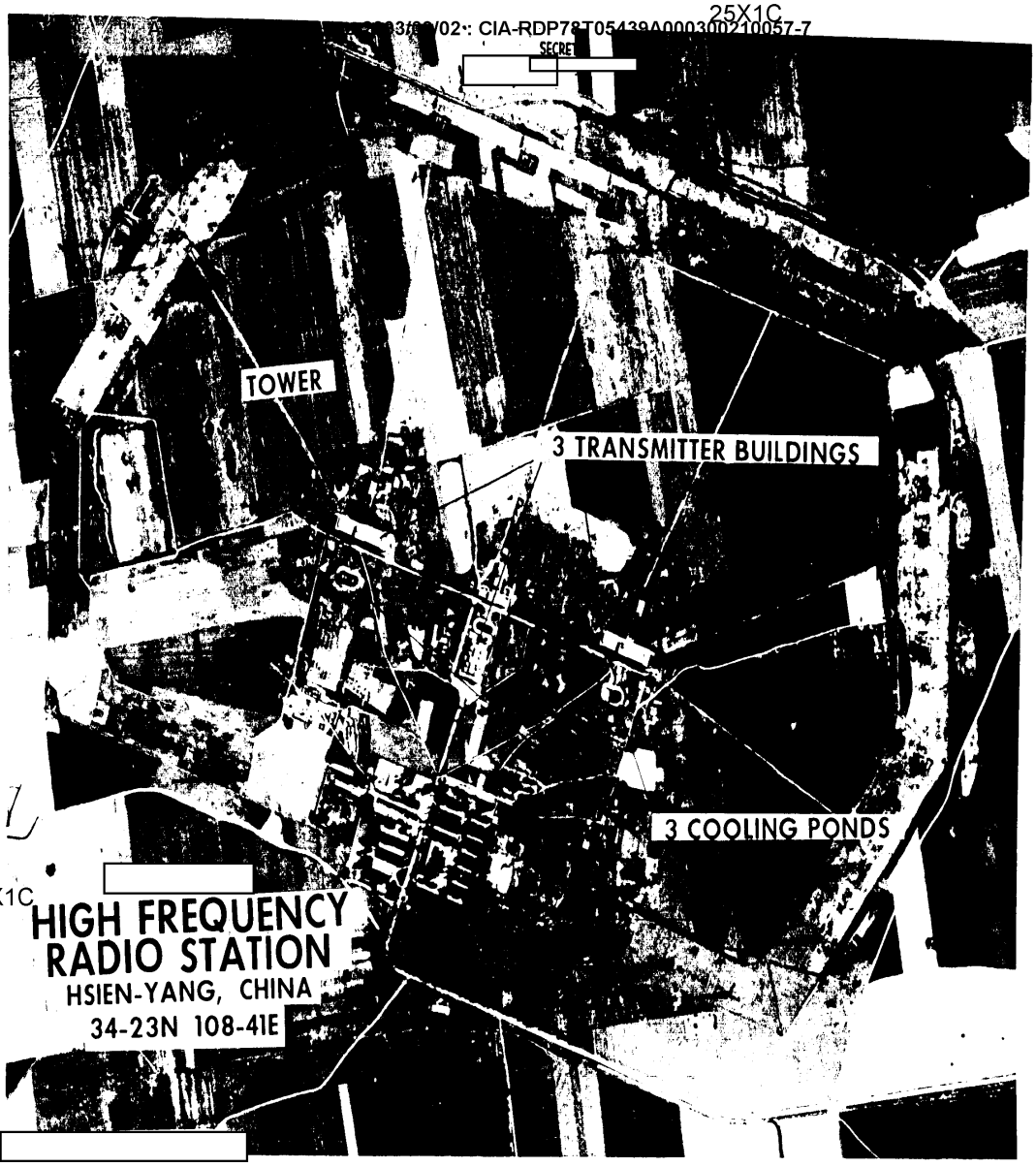

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HIGH FREQUENCY RADIO STATION

HSIEN-YANG, CHINA

34-23N 108-41E